G120 Development of airborne primary radars in the band 2360–2390 MHz with peak transmitter power in excess of 250 watts for use in the United States is not permitted.

G122 In the bands 2300–2310 MHz, 2395–2400 MHz, 2400–2417 MHz, and 4940–4990 MHz, Federal operations may be authorized on a non-interference basis to authorized non-Federal operations, and shall not constrain the implementation of any non-Federal operations.

G124 The band 2417–2450 MHz was identified for reallocation, effective August 10, 1995, for mixed Federal and non-Federal use under Title VI of the Omnibus Budget Reconciliation Act of 1993.

G128 Use of the band 56.9–57 GHz by inter-satellite systems is limited to transmissions between satellites in geostationary orbit, to transmissions between satellites in geostationary satellite orbit and those in high-Earth orbit, to transmissions from satellites in geostationary satellite orbit to those in low-Earth orbit, and to transmissions from non-geostationary satellites in high-Earth orbit to those in low-Earth orbit. For links between satellites in the geostationary satellite orbit, the single entry power flux-density at all altitudes from 0 km to 1000 km above the Earth's surface, for all conditions and for all methods of modulation, shall not exceed –147 dB (W/m^2/100 MHz) for all angles of arrival.

G129 Federal wind profilers are authorized to operate on a primary basis in the radiolocation service in the frequency band 448–450 MHz with an authorized bandwidth of no more than 2 MHz centered on 449 MHz, subject to the following conditions: (1) wind profiler locations must be pre-coordinated with the military services to protect fixed military radars; and (2) wind profiler operations shall not cause harmful interference to, nor claim protection from, military mobile radiolocation stations that are engaged in critical national defense operations.

G130 Federal stations in the radiolocation service operating in the band 5350–5470 MHz, shall not cause harmful interference to, nor claim protection from, Federal stations in the aeronautical radionavigation service operating in accordance with ITU Radio Regulation No. 5.449.

G131 Federal stations in the radiolocation service operating in the band 5470–5650 MHz, with the exception of ground-based radars used for meteorological purposes operating in the band 5600–5650 MHz, shall not cause harmful interference to, nor claim protection from, Federal stations in the maritime radionavigation service.

G132 Use of the radionavigation-satellite service in the band 1215–1240 MHz shall be subject to the condition that no harmful interference is caused to, and no protection is claimed from, the radionavigation service authorized under ITU Radio Regulation No. 5.331. Furthermore, the use of the radionavigation-satellite service in the band 1215–1240 MHz shall be subject to the condition that no harmful interference is caused to the radiolocation service. ITU Radio Regulation No. 5.43 shall not apply in respect of the radiolocation service. ITU Resolution 608 (WRC–03) shall apply.

G133 No emissions to deep space shall be effected in the band 7190–7235 MHz. Geostationary satellites in the space research service operating in the band 7190–7235 MHz shall not claim protection from existing and future stations of the fixed and mobile services and No. 5.43A does not apply.

[49 FR 2373, Jan. 19, 1984]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 2.106, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 2.107 Radio astronomy station notification.

(a) Pursuant to No. 1492 of Article 13 and Section F of Appendix 3 to the international *Radio Regulations* (Geneva, 1982), operators of radio astronomy stations desiring international recognition of their use of specific radio astronomy frequencies or bands of frequencies for reception, should file the following information with the Commission for inclusion in the Master International Frequency Register:

(1) The center of the frequency band observed, in kilohertz up to 28,000 kHz inclusive, in megahertz above 28,000 kHz to 10,500 MHz inclusive and in gigahertz above 10,500 MHz.

(2) The date (actual or foreseen, as appropriate) when reception of the frequency band begins.

(3) The name and location of the station, including geographical coordinates in degrees and minutes.

(4) The width of the frequency band (in kHz) observed by the station.

(5) The antenna type and dimensions, effective area and angular coverage in azimuth and elevation.

(6) The regular hours of reception (in UTC) of the observed frequency.

(7) The overall receiving system noise temperature (in kelvins) referred to the output of the receiving antenna.

(8) The class of observations to be taken. Class A observations are those in which the sensitivity of the equipment is not a primary factor. Class B observations are those of such a nature that they can be made only with advanced low-noise receivers using the best techniques.

(9) The name and mailing address of the operator.

(b) The permanent discontinuance of observations, or any change to the information above, should also be filed with the Commission.

(c) Observations being conducted on frequencies or frequency bands not allocated to the radio astronomy service should be reported as in paragraph (a) of this section for information purposes. Information in this category will not be submitted for entry in the Master International Frequency Register and protection from interference will not be afforded such operations by stations in other services.

§ 2.108 Policy regarding the use of the fixed-satellite allocations in the 3.6–3.7, 4.5–4.8, and 5.85–5.925 GHz bands.

The use of the fixed-satellite allocations in the United States in the above bands will be governed by footnote US245. Use of the fixed-satellite service allocations in these bands is for the international fixed-satellite service, that is, for international inter-continental communications. Case-by-case electromagnetic compatibility analysis is required with all users of the bands. It is anticipated that one earth station on each coast can be successfully coordinated. Specific locations of these earth stations depend upon service requirements and case-by-case EMC analyses that demonstrate compatible operations.

Subpart C—Emissions

§ 2.201 Emission, modulation, and transmission characteristics.

The following system of designating emission, modulation, and transmission characteristics shall be employed.

(a) Emissions are designated according to their classification and their necessary bandwidth.

(b) A minimum of three symbols are used to describe the basic characteristics of radio waves. Emissions are classified and symbolized according to the following characteristics:

(1) First symbol—type of modulation of the main character;

(2) Second symbol—nature of signal(s) modulating the main carrier;

(3) Third symbol—type of information to be transmitted.

NOTE: A fourth and fifth symbol are provided for additional information and are shown in Appendix 6, part A of the ITU Radio Regulations. Use of the fourth and fifth symbol is optional. Therefore, the symbols may be used as described in Appendix 6, but are not required by the Commission.

(c) First Symbol—types of modulation of the main carrier:

(1) Emission of an unmodulated carrier	N
(2) Emission in which the main carrier is amplitude-modulated (including cases where sub-carriers are angle-modulated):.	
—Double-sideband	A
—Single-sideband, full carrier	H
—Single-sideband, reduced or variable level carrier	R
—Single-sideband, suppressed carrier	J
—Independent sidebands	B
—Vestigial sideband	C
(3) Emission in which the main carrier is angle-modulated:.	
—Frequency modulation	F
—Phase modulation	G

NOTE: Whenever frequency modulation ''F'' is indicated, Phase modulation ''G'' is also acceptable.

(4) Emission in which the main carrier is amplitude and angle-modulated either simultaneously or in a pre-established sequence	D
(5) Emission of pulses:[1].	